

Serial No.: 09/521,769
Group Art Unit: 1631

REMARKS

This Amendment is responsive to the Final Office Action of September 30, 2002. Applicant respectfully submits that this Amendment should be entered because it, Applicant believes, places the pending claims in condition for immediate allowance or removes issues for appeal.

Applicant wishes to thank the Examiner for the courtesies extended during the telephone discussion of January 30, 2003. During the discussion, independent claim 1 and antecedent basis issues for certain terms associated with this claim were discussed.

I. Claims

Claims 1 – 9 are pending and these claims were rejected.

Claim 1 has been amended merely to clarify the invention. No new matter is added by these new claims.

II. Rejections Under 35 U.S.C. § 112 First Paragraph, Written Description

A. The Examiner's rejection

Claims 1-9 were rejected under 35 U.S.C. § 112, first paragraph as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

In particular, the Examiner averred that the amendment to claim 1, part (c) which deleted the wherein clause, "wherein, for each such record, a uniform quality end product results ... falling within the associated product processing feature range set" resulted in "NEW MATTER."

B. Applicant's response

Without conceding the validity of these rejections, and solely for purposes of expediting prosecution of this Application, Applicant has amended the claim to add the wherein clause. Accordingly, Applicant respectfully submits that this rejection is moot. Reconsideration is respectfully requested.

Serial No.: 09/521,769
Group Art Unit: 1631

III. Rejections Under 35 U.S.C. § 102

A. The Examiner's Rejection

Claims 1-3 and 5-9 were rejected under 35 U.S.C. §102 as being anticipated by Chtioui et al., J. Sci. Food Agric, 1998, 76:77-86 ("Chtioui"). Applicant respectfully traverses this rejection.

B. The law

"A claim is anticipated if each and every limitation is found either expressly or inherently in a single prior art reference." *Bristol-Myers Squibb v. Ben Venue*, 246 F.3d 1368, 1374 (Fed. Cir. 2001). Identity of invention requires that a prior reference disclose to one of ordinary skill in the art all elements and limitations of the patent claim. *Scripps Clinic v. Genentech*, 927 F.2d 1565, 1576 (Fed. Cir. 1991). Absence from the reference of any claimed element negates anticipation. *Kloster Speedsteel AB v. Crucible, Inc.*, 230 USPQ 81 (Fed. Cir. 1986). "Even if the claimed invention is disclosed in a printed publication, that disclosure will not suffice as prior art if it is not enabling." *In re Donohue*, 766 F.2d 531, 533 (Fed. Cir. 1985). The law requires identity of the claimed process and process of the prior art; each step of the claimed method must have been expressly described or embodied in an anticipatory reference. *Glaverbel Societe Anonyme v. Northlake Marketing & Supply, Inc.*, 33 USPQ2d (Fed. Cir. 1995). The preamble can be a claim limitation in situations wherein it gives life and meaning to the invention. See for example *In re Cruciferous Sprout Litigation [Brassica Protection Products LLC v. Sunrise Farms]*, 301 F.3d 1343, 1347 (Fed. Cir. 2002); *Catalina Marketing v. Cool Savings*, 289 F.3d 801, 808 (Fed. Cir. 2002); *Pitney Bowes v Hewlett-Packard*, 182 F.3d 1298 (Fed. Cir. 1999). Although, as a general rule, claims receive their broadest reasonable meaning during the patent examination process, this rule does not relieve the Patent Office of its essential task of examining the entire disclosure to discern the meaning of claim words and phrases. *Rowe v. Dror*, 42 USPQ2d 1550 (Fed. Cir. 1997).

Serial No.: 09/521,769
Group Art Unit: 1631

C. The facts

Claim 1 presently reads as follows:

1. A method for non-random selection of a raw product of a selected plant for processing into a uniform quality end product comprising the steps of:
 - (a) obtaining one or more samples of the raw product of the selected plant;
 - (b) analyzing the one or more samples to determine at least one structural or functional index associated with the raw product;
 - (c) providing a plurality of product processing records, wherein each of the records associates a given set of product processing data with a corresponding product processing feature range set representative of the selected plant, and wherein, for each such record, the uniform quality end product results from application of the given set of product processing data to raw product falling within the associated product processing feature range set;
 - (d) determining the suitability of the one or more samples obtained in step (a) for processing into the uniform quality end product by comparing the at least one structural or functional index to the product processing feature range sets in the records; and
 - (e) if the at least one structural or functional index matches one of the product processing feature range sets in the records then, selecting the raw product so that when processed under the given set of product processing data, the selected raw product results in the uniform quality end product.

The invention concerns non-random selection of a raw product of a selected plant for processing into a uniform quality end product. Step (c) requires, among other things, "product processing data.

D. Application of law to facts

First Applicant maintains its arguments presented in response to the Office Action of April 9, 2002. Further, as already pointed out, the Chtioui reference teaches computational models of evolution, Genetic algorithms (GAs), and methods for the discrimination of seeds according to their species by employing GAs. The Examiner has extrapolated from such

Serial No.: 09/521,769
Group Art Unit: 1631

teachings to reach the conclusion that the present claims are anticipated by this reference.

It must be pointed out again that the Chtioui reference does not teach a method for non-random selection of a raw product of a selected plant for processing into a uniform quality end product as claimed in the present application. Although the Examiner notes on page 4 of the Office Action that "Chtioui et al. selects raw products which are specific such as seeds in the abstract. Clearly, the selection of specific items such as seeds is non-random" but the text of Chtioui is otherwise. The Chtioui reference explicitly states that "[s]eeds... were randomly picked from batches." See, "Sample collection" on page 80 of Chtioui.

On page 5 of the Office Action, the Examiner notes that "the instant claims do not require that the end products be all exactly the same but rather uniform without limitations as to what uniformity is meant." In response, Applicant respectfully submits that the claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art and the entire disclosure must be considered to discern the meaning of claim words and phrases. *In re Cortright*, 49 USPQ2d 1464 (Fed. Cir. 1999); *Rowe v. Dror*, 42 USPQ2d 1550 (Fed. Cir. 1997). The specification makes clear what level of uniformity is contemplated. Indeed, the specification repeatedly refers to uniform quality end products. See, page 1, line 15 through page 3, line 25. Further, the specification at page 25, line 26 through page 26, line 9 teaches how to obtain uniform quality fruits a given cultivar. Figures 4A and 4B illustrate how the product features of a particular tomato cultivar is impacted. The specification repeatedly refers to uniform quality end products. Within claim 1, the preamble and steps (c), (d), and (e) all refer to a uniform quality end product. These and similar other teachings evince a particular and distinct meaning for the phrase "uniform quality end product." These teachings are not directed at discriminating seeds of different species and maintaining heterogeneity.

As to heterogeneity taught by the prior art reference, the Examiner asserts on page 4 of the Office Action that the Chtioui reference, at page 78, "does not indicate whether or not that the end product of a process is uniform within expected parameters, or not." In response, Applicant submits that this is not enough to show anticipation; what is required is that the prior art reference must describe the applicant's claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it. *Rowe v. Dror*, 42 USPQ2d 1550

Serial No.: 09/521,769
Group Art Unit: 1631

(Fed. Cir. 1997). Further, the Examiner admits that a claim element is not met.

Thus, the Chtioui reference does not teach the "uniform quality end product" limitation of claim 1. Under the law, absence from the reference of any claimed element negates anticipation. Therefore, the Chtioui reference does not anticipate claim 1, or claims depending therefrom.

As to step (c) of the instant claim, the Examiner points to "pages 82-86 of the [Chtioui] reference wherein 'Seed Appearance' and seed features were related to, or associated with, the expected seed product character upon end product processing." Applicant disagrees. Under the "[s]eed appearance" section, at page 82, Chtioui teaches that "[a]reas... did not allow the discrimination between rumex and red fescue. Moreover, the width, which represented the length of the minor principal axis of each seed, did not make it possible to discriminate between rumex and perennial rye grass." These teachings indicate that Chtioui's discrimination method did not result in expected seed product upon end product processing and thus are contrary to the Examiner's interpretation that the seed features were related to, or associated with, the expected seed product character upon end product processing. Chtioui also teaches, for example, that "[s]eeds of rumex had a small size and a dark brown color and were homogenous in size and color." Where are the feature range sets as required by the step (c) of the instant claim? As to product processing data, the Examiner points to pages 82-86 of Chtioui. The iterative processes and the evolution of the percentage of selection of variables taught on pages 82-86 of Chtioui are not product processing data sets.

The Examiner also avers that seed examination in order to define characteristics of the seeds is product processing data. Assuming for the sake of argument that the examination is product processing data, where does Chtioui teach a set of product processing data with a corresponding product processing feature range set, much less the plurality of product processing data sets as required by the step (c) of the instant claim? These claim elements are not asserted to be in the Chtioui reference either expressly or inherently. Because the Examiner has not pointed to the appearance of these elements in the Chtioui disclosure, Applicant respectfully submits that Chtioui does not disclose or teach the step (c) of the instant claim. Nor does Chtioui disclose other claimed features as pointed out by the Applicant in its response to the Office Action of April 9, 2002.

Serial No.: 09/521,769
Group Art Unit: 1631

Under the law, absence from the reference of any claimed element negates anticipation. Therefore, the Chtioui reference does not anticipate claim 1, or claims depending therefrom.

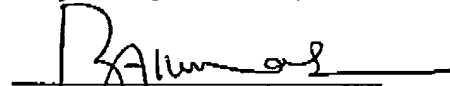
Accordingly, in view of the declaration evidence and the foregoing amendments and remarks, reconsideration and withdrawal of the rejection under 35 U.S.C. §102 are respectfully requested

IV. Conclusion

Applicant believes this response to be a full and complete response to the Office Action. Thus, favorable reconsideration in view of this response and allowance of all of the pending claims are earnestly solicited.

Respectfully submitted,

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Serial No.: 09/521,769
Group Art Unit: 1631

Marked Up Version of Claims in Serial No. 09/521,769

1. (Twice Amended) A method for non-random selection of a raw product of a selected plant for processing into a uniform quality end product comprising the steps of:
 - (a) obtaining [a sample] one or more samples of the raw product of the selected plant;
 - (b) analyzing the [sample] one or more samples to determine at least one structural or functional index associated with the raw product;
 - (c) providing a plurality of product processing records, wherein each of the records associates a given set of product processing data with a corresponding product processing feature range set representative of the selected plant, and wherein, for each such record, the uniform quality end product results from application of the given set of product processing data to raw product falling within the associated product processing feature range set;
 - (d) determining the suitability of the [sample] one or more samples obtained in step (a) for processing into the uniform quality end product by comparing the at least one structural or functional index to the product processing feature range sets in the records; and
 - (e) if the at least one structural or functional index matches one of the product processing feature range sets in the records then, selecting the raw product so that when processed under the given set of product processing data, the selected raw product results in the uniform quality end product.

Serial No.: 09/521,769
Group Art Unit: 1631

APPENDIX: Copy of Pending Claims in Serial No. 09/521,769 as of September 30, 2002

1. (Twice Amended) A method for non-random selection of a raw product of a selected plant for processing into a uniform quality end product comprising the steps of:
 - (a) obtaining one or more samples of the raw product of the selected plant;
 - (b) analyzing the one or more samples to determine at least one structural or functional index associated with the raw product;
 - (c) providing a plurality of product processing records, wherein each of the records associates a given set of product processing data with a corresponding product processing feature range set representative of the selected plant, and wherein, for each such record, the uniform quality end product results from application of the given set of product processing data to raw product falling within the associated product processing feature range set;
 - (d) determining the suitability of the one or more samples obtained in step (a) for processing into the uniform quality end product by comparing the at least one structural or functional index to the product processing feature range sets in the records; and
 - (e) if the at least one structural or functional index matches one of the product processing feature range sets in the records then, selecting the raw product so that when processed under the given set of product processing data, the selected raw product results in the uniform quality end product.
2. The method of claim 1, wherein the selected plant product is a group fruits, a group of tubers, a group of seeds, a group of leaves, a group of vegetative buds, a group of inflorescences, a group of nuts or a group of seeds of the crop plant.
3. The method of claim 1, wherein analyzing the sample is by means of an imaging system.
4. The method of claim 3, wherein the imaging system is a light microscope, fluorescent microscope, spectral microscope, hyper-spectral microscope, electron microscope,

Serial No.: 09/521,769
Group Art Unit: 1631

confocal microscope optical coherence tomograph telescope or spectral telescope, MRI or ultrasound.

5. The method of claim 1, wherein the at least one structural or functional index is a plant phenomics index.

6. The method of claim 5, wherein the plant phenomics is macrophenomics or microphenomics.

7. The method of claim 1, wherein the at least one structural or functional index includes a qualitative feature.

8. The method of claim 1, wherein the at least one structural or functional index includes a quantitative feature.

9. The method of claim 1, wherein said processing data include bioprocessing data.